Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

and B, subjacent masses. Under A are included I, concordant injections (injected along bedding planes), as intrusive sheets, laccoliths, and phacoliths; and II, discordant, or cross-cutting injections, as dikes, necks, bysmaliths, chonoliths, etc. Under B are placed stocks and bosses and batholiths. Extrusive bodies are similarly classified as to form.

Part II considers the cosmical aspects of the earth, and discusses abyssal injection, magmatic stoping, magmatic assimilation, magmatic differentiation, and the mechanism of volcanic vents, closing with a summary of the author's eclectic theory.

The rocks passed in review in Part III are discussed in the light of this theory. COLLIER COBB.

Syllabus of Historical Geology. Columbia University, Department of Geology. By A. W. Grabau. 51 pp. A. G. Seiler, New York, 1912. 50 cents. 8 x 5½.

The division of historical geology into its three aspects of stratigraphy, paleontology and physiography forms the basis of the studies. Although the syllabus bears no reference to the relation between the first and last subjects; the order of succession may be taken to imply due recognition of interdependence. The course appears laid out according to established methods of ascribing paramount importance to paleontologic evidence as contrasted with the lithologic. While this is still natural in view of the mass of detail accumulated in the field of paleontology, the petrographic phases of historical geology should not be overlooked any longer. The terminology used is restricted to the more precise meanings evolved by modern demand for accuracy.

LEON DOMINIAN.

Physical Geography. By Philip Lake. xx and 324 pp. Map, ills., index. University Press, Cambridge, 1915. G. P. Putnam's Sons, New York. 9 x 6.

Intended for students who have had a course of general elementary science. It is assumed that the student understands the principles of the barometer and thermometer, and has some knowledge of the motions of the earth and the moon. The atmosphere, hydrosphere, and lithosphere are considered. Geological subjects not taken up in many physical geographies are included. Where the origin of a physiographic feature has not definitely been agreed upon by authorities the most important theories are given and discussed. In this connection the chapter on coral reefs and islands is of interest.

A feature of the work is the numerous sections, diagrams, etc., bearing on the text. Sections, especially if simple and well-drawn, always give the reader a clearer understanding of many problems in physiography and geology than any other method of visual instruction. WILBUR GREELEY BURROUGHS.

Structural Geology. By C. K. Leith. viii and 169 pp. Ills., index. H. Holt & Co., New York, 1913. $1.50. 9 x 6.

"The structural geologist," writes Leith, "has in recent years found it necessary in his field work to give much attention to the genetic relationship of rock structures produced by deformation. The student reads in general textbooks about individual structures, but seldom of their relations, with the result that at least in his early field work he may fail to utilize methods which are helpful or essential in the interpretation of the geology of a district. Emphasis upon geological structures as related parts of a record or process rather than as isolated facts determines the method of presentation in this book." He says that he was associated with Van Hise in the development of Van Hise's "Principles of North American Pre-Cambrian Geology," and that the book under consideration is partly a development and revision of the ideas of Van Hise's paper.

Among the subjects taken up are rock flowage, fractures, faults, structures common to both fracture and flow, types of mountains, major units of structure, ultimate forces of secondary deformation, isostasy being taken up in some detail, and unconformity.

Leith says that he regards minor folds, as evidence of differential movement between beds, as one of the most fundamental principles in the field study of structures. He writes: "the position of the major fold is inferred from the differential movement indicated by the minor folds. The major fold may in turn be found to be one of a series of minor folds related to a still larger fold."

Numerous directions for field observations are given, such as relations of cleavage to folds, determination of top and bottom of sedimentary beds in a folded area, physical evidences of unconformity, etc. There also are many exercises for laboratory work. Photographs, sections, etc., aid the text. The book should be valuable to all interested in geology.

WILBUR GREELEY BURROUGHS.

METEOROLOGY AND CLIMATOLOGY

The Laws of the Evaporation of Water from Pans, Reservoirs and Lakes, Sand, Soils and Plants (Part 1). The Definitive Formulas for the Evaporation of Water from Pans of Different Sizes, Lakes and Reservoirs. Studies on Evaporation from Soil, Sand, and Loam Planted with Wheat, Beans and Alfalfa (Part 2). By F. H. Bigelow, Argentine Meteorol. Office. Bulletin No. 2. 147 pp. Buenos Aires, 1912.

Professor Bigelow, of the Argentine Meteorological Office, is carrying on there investigations similar to those which he had previously undertaken in this country. Professor Bigelow discusses the apparatus for measuring evaporation; the several terms of the evaporation formula, and gives the computation-tables necessary for use in practical work, with examples to show the methods of computation. The results previously obtained in the United States are embodied in this report, as well as the later conclusions reached in Argentina. The practical bearing of these studies may be realized from the fact that Professor Bigelow has given tables for computing evaporation which require only that observations of the mean water surface temperature, the mean vapor pressure and the mean wind velocity, shall be available. Moreover, the thermometer readings need be made only to tenths of a degree (C.) and the anemometer readings to kilometers. Thus, as Professor Bigelow points out, "the entire work can be put on a basis easy for all classes of people." The text is Spanish and English.

R. DEC. WARD.

Les Problèmes de l'Atmosphère. Par A. Berget. 342 pp. Ills. E. Flammarion, Paris, 1914. Fr. 3.50. 7½ x 4½.

Professor Berget has tried to summarize, in compact form, the many important meteorological problems which await solution. His hope is that he may inspire others to study them, and to clear them up. The chapters deal with the following atmospheric relations: form, dimensions, composition, history, dust, optical phenomena, sound, radiation, temperature, pressure, circulation, water vapor, electricity, mechanics, utilization, and "the problem of the atmosphere." The historical development of each subject is emphasized.

Professor Berget's discussion is thoroughly up to date in almost every case, as, *e. g.*, in including reference to the dust of the Katmai eruption, and to the new C. G. S. units. One omission we regret to see—reference to the planetesimal hypothesis as to the origin of the atmosphere. In the chapter on sound, note is made of the interesting application of the laws of acoustics in confirming the existence of a discontinuous stratum at a height of 75-80 kilometers. Our author holds that both mechanical and thermal causes act together in the formation, maintenance and propagation of cyclones. The application of the mechanics of the atmosphere to the progress of aviation is considered. The great problem of the atmosphere is weather forecasting, both short and long range. We can recommend Prof. Berget's book as giving a broad view of many of the great principles and problems of modern meteorology, and as suggesting numerous topics for discussion in the class-room, and for investigation in the laboratory and outdoors.

R. DEC. WARD.